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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,992	03/02/2004	Sang Woon Suh	1740-000038/US	9678
36593 7590 12/14/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER ALUNKAL, THOMAS D				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,992

Applicant(s)

SUH ET AL.

Examiner

THOMAS D. ALUNKAL

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1.5-8,10,11,13,15,17-20,22-24 and 41-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1.5-8,10,11,13,15,17-20,22-24 and 41-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/6/09 has been entered.

Response to Arguments

Applicant's arguments filed 10/6/09 with respect to the 35 U.S.C. 102(b) rejections of claims 1, 5, 6, 13, 20, and 42 have been fully considered but they are not persuasive.

Regarding applicant's arguments beginning on page 10 of Remarks, the applicant argues that Sako et al. (hereafter Sako) fails to disclose all of the claimed limitations of independent claims 1, 13, 20, and 42. Specifically, the applicant argues that "...as shown in Fig. 11D of Sako the pits overlap the center-line, and therefore fail to disclose or suggest 'wobbled pits being shifted away from a central line of the wobbled pits,' as recited in the independent claims." However, pits that do not overlap the center-line is not currently claimed in claims 1, 13, 20, and 42. Rather, "wobbled pits being shifted away from a central line of the wobbled pits" requires that wobbled pits are shifted in a direction away from the central line from which the pits are shifted. Figure

11D of Sako discloses such a shift in a direction away from the central line from which the pits are shifted.

On page 11 of Remarks, the applicant argues that "Sako does not teach the selection between straight pits and wobbled pits". However, this argument previously addressed in the Office action dated 7/6/09. It is noted the applicant has not presented any new arguments pertaining to the above argued limitation. Therefore, Sako discloses all of the argued limitations of independent claims 1, 13, 20, and 42.

New independent claim 49 will be addressed below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, 13, 20, 42, and 50-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Sako et al. (hereafter Sako)(WO 02/37493).

US Patent 7,215,610 is relied upon as the English equivalent to the WO document Sako et al.

Regarding claim 1, Sako discloses a computer readable medium including a lead-in area, a data area and a lead-out area (Figure 10), comprising: physical mark information recorded as a pit type, the pit type selected from at least one of wobbled pits and straight pits in a specific area of the lead-in area not writable by end user recorders

(Figures 11A-11D, Column 17, line 15+ and Column 18, lines 23-56), wherein the physical mark information provides control information for controlling a reproduction of data recorded as straight pits on the data area and is formed along a modulated unique pattern (Column 18, lines 23-34 where the encrypted data in the lead-in area is used for the decryption of data in the data area of the disc), and wherein if the pit type is selected to be wobbled pits, at least a part of the wobbled pits forming the physical mark information is shifted from a central line of the wobbled pits (Figure 11D where the wobbled pits are shifted in a direction away from a central line of the wobbled pits).

Regarding claim 5, Sako discloses wherein the modulated unique pattern represents encryption information used in encrypting data of the data area (Column 18, lines 10-34).

Regarding claim 6, Sako discloses wherein the control information further includes copy management information indicating whether duplication of the data is allowed (Column 18, lines 30+).

Regarding claim 13, this claim is drawn to the apparatus for forming the recording medium of claim 1. Sako discloses such an apparatus in Figure 3. Additionally, claim 13 recites limitations substantially similar to those recited in claims 1 and 5. Thus, claim 13 is rejection for the reasons provided above in claim 1 and 5, in addition to Figure 3 of Sako.

Regarding claim 20, this claim is drawn to the method of reproducing data from the recording medium of claim 1. Sako discloses the reproducing apparatus which performs the method steps in Figure 12. Additionally, claim 20 recites limitations

substantially similar to those recited in claim 1. Thus, claim 20 is rejected for the reasons provided above in claim 1, in addition to Figure 12 of Sako.

Apparatus claim 42 is drawn to the apparatus corresponding to the method of using same as claimed in claim 20. Therefore apparatus claim 42 corresponds to method claim 20, and is rejected for the same reasons of anticipation as used above.

Regarding claims 50-51, Sako discloses wherein the pit type selected from at least one of wobbled pits and straight pits in a specific area of a lead-in area of the recording medium is based on a type of the recording medium (Figures 11A-11D, Column 17, line 15+ and Column 18, lines 23-56), and the type of recording medium is one of Read-Only, Recordable, and Rewritable types (Column 8, lines 43-57).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view Kuroda (US 6,683,844) as applied in the Office Action dated 7/6/09.

Claims 8, 10, 15, 17, 19, 22, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view of Ha et al. (US 7,028,011) as applied in the Office Action dated 7/6/09.

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view of Ha et al. (US 7,028,011), as applied in the Office Action dated 7/6/09.

Claims 11, 18, 23, 24, 41, 44, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view of Ha et al. (US 7,028,011), and further in view of applicant's admitted prior art (unchallenged Official Notice) as applied in the Office Action dated 7/6/09.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view of Ha et al. (US 7,028,011), as applied in the Office Action dated 7/6/09.

Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sako in view of Horimai (US 5,563,872).

Regarding claim 49, Sako discloses a method of forming a recording medium (Figure 12), comprising: forming an information area for recording disc management information and/or data (Figures 8-9); and forming physical mark information as a pit type, the pit type selected from at least one of wobbled pits and straight pits in a specific area of a lead-in area of the recording medium (Figures 11A-11D, Column 17, line 15+

and Column 18, lines 23-56), wherein the physical mark information provides control information for controlling a reproduction of data recorded as straight pits on a data area of the recording medium and is formed along a modulated unique pattern (Column 18, lines 23-34 where the encrypted data in the lead-in area is used for the decryption of data in the data area of the disc), wherein if the pit type selected is wobbled pits, at least a part of the wobbled pits forming the physical mark information wobbling manner with respect to a central line of the wobbled pits (Figure 11D), and wherein the modulated unique pattern represents encryption information used in encrypting data of the data area (Column 18, lines 10-34). Sako does not specifically disclose wherein the wobbled pits are formed so as to not overlap with a central line of the wobbled pits. In the same field of endeavor, Horimai discloses an optical recording medium which includes wobbled pits formed in a manner so as to not overlap a central line from which the wobbled pits are shifted (Figure 5a). Horimai discloses that by forming the wobbled pits in such a manner, a single optical beam can accurately detect the wobbled pits on both sides of the track center (Column 7, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to displace the wobbled pits of Sako at a predetermined distance so as to avoid overlap with a central line of the wobbled pits as disclosed by Horimai, motivation being to allow for accurate detection of wobbled pits on both sides of the track center.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS D. ALUNKAL whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas D Alunkal/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627